Title: IMPLANTABLE CARDIAC MONITOR UPGRADEABLE TO PACEMAKER OR CARDIAC RESYNCHRONIZATION DEVICE

## **IN THE CLAIMS**

Please amend the claims as follows:

- 1. (Currently Amended) An implantable medical device, comprising:
  - a sensing circuit to sense at least one electrogram;
  - a pacing circuit to deliver pacing pulses; and
- a processor coupled to the sensing circuit and the pacing circuit, the processor including a cardiac monitor controller that is upgradeable to a pacemaker controller by programming the implantable medical device to configure the implantable medical device from an implantable cardiac monitor to an implantable pacemaker,

wherein the sensing circuit is adapted to be programmed from a circuit suitable for far-field electrogram sensing to a circuit suitable for intracardiac electrogram sensing when the cardiac monitor controller is upgraded to the pacemaker controller, and the pacing circuit is adapted to be inactive when the implantable medical device is configured to be the implantable cardiac monitor and capable of producing pacing pulses when the implantable medical device is configured to be the implantable pacemaker.

- 2. (Original) The implantable medical device of claim 1, wherein the sensing circuit comprises a band-pass digital filter having programmable filter coefficients.
- 3. (Original) The implantable medical device of claim 1, wherein the sensing circuit comprises a first band-pass filter and a second band-pass filter selectable by programming.
- 4. (Original) The implantable medical device of claim 3, wherein the first band-pass filter has a first low cutoff frequency in a range of 0.5 Hz to 10 Hz and a first high cutoff frequency in a range of 30 Hz to 100 Hz.
- 5. (Original) The implantable medical device of claim 3, wherein the second band-pass filter has a second low cutoff frequency in a range of 10 Hz to 30 Hz and a second high cutoff frequency in a range of 60 Hz to 150 Hz.

6. (Original) The implantable medical device of claim 1, wherein the processor comprises: a microprocessor; and

a memory circuit coupled to the microprocessor, the memory circuit includes a random access memory containing at least a portion of a control code, including one of a cardiac monitor control code and a pacemaker control code.

- 7. (Original) The implantable medical device of claim 6, wherein the sensing circuit further comprises an activity sensor circuit to sense at least one physical activity level.
- The implantable medical device of claim 7, wherein the memory 8. (Currently Amended) circuit comprises a data storage space allowing storage of one or more of the at least one an electrogram, the at least one physical activity level, and an activity log reporting detections of predetermined activities.
- The implantable medical device of claim 8, wherein the processor 9. (Currently Amended) further comprises an activity detector to detect the predetermined activities from one or more of the at least one electrogram and the at least one physical activity signal.
- The implantable medical device of claim 9, wherein the activity 10. (Currently Amended) detector comprises an arrhythmia detector to detect at least one predetermined type of arrhythmia from the at least one electrogram.
- 11–56. (Canceled)
- 57. (Previously Presented) The implantable medical device of claim 1, wherein the processor comprises:
  - a microprocessor; and
- a memory circuit including a read-only memory configured to store firmware and a random-access memory configured to store upgradeable software, wherein at least a portion of

pacemaker controller.

the upgradeable software is updated when the cardiac monitor controller is upgraded to the

The implantable medical device of claim 57, wherein the memory 58. (Previously Presented) circuit includes a control code providing for a safety operation mode when the cardiac monitor controller is being upgraded to the pacemaker controller.

- The implantable medical device of claim 58, wherein the 59. (Previously Presented) pacemaker controller is further convertible to the cardiac monitor controller by programming the implantable medical device.
- The implantable medical device of claim 59, wherein the random-60. (Previously Presented) access memory comprises data storage space reallocated when the cardiac monitor controller is upgraded to the pacemaker controller and when the pacemaker controller is converted to the cardiac monitor controller.
- The implantable medical device of claim 1, comprising an implant 61. (Previously Presented) telemetry module adapted to receive device configuration instructions via telemetry, the device configuration instructions causing the cardiac monitor controller to be upgraded to the pacemaker controller.
- The implantable medical device of claim 61, wherein the device 62. (Previously Presented) configuration instructions comprise authorization information, and the processor comprises a configuration authorization module adapted to permit the cardiac monitor controller to be upgraded to the pacemaker controller upon verification of the authorization information.
- The implantable medical device of claim 62, wherein the 63. (Previously Presented) configuration authorization module is adapted to permit the cardiac monitor controller to be upgraded to the pacemaker controller upon receiving a device identification code uniquely identifying a device intended to be configured.

Page 5 Dkt: 279.651US1

Filing Date: November 13, 2003

Title: IMPLANTABLE CARDIAC MONITOR UPGRADEABLE TO PACEMAKER OR CARDIAC RESYNCHRONIZATION DEVICE

The implantable medical device of claim 61, wherein the processor 64. (Previously Presented) comprises a configuration authorization module adapted to generate a permission signal upon verifying authorization information in an authorization signal received by the implantable medical device.

- The implantable medical device of claim 1, wherein the sensing 65. (Previously Presented) circuit is adapted to sense one or more signals indicative of one or more of a physical activity level and a metabolic level.
- The implantable medical device of claim 1, comprising an 66. (Previously Presented) implantable cardiac resynchronization device converted from an implantable cardiac monitor after the cardiac monitor controller is upgraded to the pacemaker controller.